```
1 /*
 2 Display.h - A simple track GPS to SD card logger. Display module.
 3 TinyTrackGPS v0.8
4
 5 Copyright © 2019-2021 Francisco Rafael Reyes Carmona.
 6 All rights reserved.
 7
 8 rafael.reyes.carmona@gmail.com
9
     This file is part of TinyTrackGPS.
10
11
12
     TinyTrackGPS is free software: you can redistribute it and/or modify
     it under the terms of the GNU General Public License as published by
13
14
     the Free Software Foundation, either version 3 of the License, or
     (at your option) any later version.
15
16
17
     TinyTrackGPS is distributed in the hope that it will be useful,
     but WITHOUT ANY WARRANTY; without even the implied warranty of
18
     MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
19
     GNU General Public License for more details.
20
21
22
     You should have received a copy of the GNU General Public License
     along with TinyTrackGPS. If not, see <a href="https://www.gnu.org/licenses/">https://www.gnu.org/licenses/</a>.
24 */
25
26 #if ARDUINO >= 100
27
     #include "Arduino.h"
28 #else
     #include "WProgram.h"
29
30 #endif
31
32 #ifndef Display_h
33 #define Display_h
34
35 #include "config.h"
36
37 #if defined(DISPLAY_TYPE_LCD_16X2)
38
       #include <LiquidCrystal.h>
39 #elif defined(DISPLAY_TYPE_LCD_16X2_I2C)
       #include <LiquidCrystal_I2C.h>
40
41 #elif defined(DISPLAY TYPE SDD1306 128X64)
42
       #define U8X8 HAVE HW I2C
       #include <U8x8lib.h>
43
44
       //#include <U8g2lib.h>
45 #endif
46
47 enum Display Type {
       SDD1306_128X64,
                         // Para usar pantalla OLED 0.96" I2C 128x64 pixels
48
                           // Para usar LCD 16 x 2 carateres.
49
       LCD_16X2,
       LCD_16X2_I2C
                           // Para usar LCD 16 x 2 carateres. I2C.
50
51|};
52
53 class Display {
       private:
54
55
           byte _offset;
56
           byte _width;
                               // Width pixels or numbers of columns for LCD.
57
           byte _height;
                               // Height pixels os numbers of rows for LCD.
58
           Display_Type _screen;
           #if defined(DISPLAY TYPE LCD 16X2)
59
               LiquidCrystal* lcd;
60
```

```
#elif defined(DISPLAY_TYPE_LCD_16X2_I2C)
61
62
               LiquidCrystal_I2C* lcd;
          #elif defined(DISPLAY TYPE SDD1306 128X64)
63
               //U8G2 SSD1306 128X64 NONAME 1 HW I2C* u8g2 SSD1306;
64
              U8X8 SSD1306 128X64 NONAME HW I2C* u8x8 SSD1306;
65
          #elif defined(DISPLAY_TYPE_HX1230_96X68)
66
              U8G2_HX1230_96X68_1_3W_SW_SPI* u8g2_HX1230;
67
          #endif
68
69
70
      public:
71
           Display(Display_Type t = SDD1306_128X64);
           Display() = delete;
72
                                                           // Constructor por defecto.
73
           Display(const Display&) = delete;
                                                           // Constructor de copia.
74
75
          void start();
           void clr();
76
          void print(int, int, const char[]);
77
          void print(int, const char[]);
78
          void print(const char[]);
79
80
          void print(const char[], const char[]);
          void print(const char[], const char[]);
81
          void print(const char[], const char[], const char[]);
82
83
          void wait_anin(unsigned int);
          void draw_wait(byte);
84
          void print_PChar(byte);
85
          void splash(int time delay = 750);
86
          Display_Type display_type(){return _screen;};
87
88 };
89
90 #endif
```